

WHAT IS CLAIMED IS:

1 1. An ATM (Asynchronous Transfer Mode) switching system
2 for connecting a plurality of subscriber's terminal units with
3 a switching network by the use of an ATM switch operated in ATM.
4 comprising:
5 a call history memory for maintaining call histories of
6 requests for connection from said plurality of subscriber's
7 terminal units;
8 a reserved connection memory for writing and reading
9 reserved connection information; and
10 a call-signal processing section provided with a first
11 means for generating a request for connection with respect to
12 said switching network by the use of said call histories in said
13 call history memory in the case where no call was issued from
14 said plurality of subscriber's terminal units during a
15 predetermined period of time, and storing contents of a response
16 from said switching network with respect to the request for
17 connection in said reserved connection memory as updated
18 reserved connection information, and a second means for using
19 said updated reserved connection information which has been
20 stored in said reserved connection memory to control said ATM
21 switch in the case where there was a call from any of said
22 subscriber's terminal units after applying said first means and
23 the request for connection is the same as the reserved connection
24 information which has been updated and stored in said reserved
25 connection memory.

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1 2. The ATM switching system as claimed in claim 1, wherein:
2 said call history memory is provided with a call history
3 region sectioned into one hour each and having an amount
4 corresponding to twenty-four hours, and subscriber's terminal
5 units to each of which any call was issued among said plural
6 subscriber's terminal units, each of the other end subscriber's
7 terminal units connected to said switching network, zones, and
8 traffic types are maintained in each of sections in said call
9 history region as tables.

1 3. The ATM switching system as claimed in claim 1, wherein:
2 said call-signal processing section is provided with
3 a connection table memory for storing switch connection
4 information given to said ATM switch;
5 a clock for outputting periodically time signals for
6 deciding a timing in case of maintaining said call history in
7 said call history memory; and
8 a timer for delivering a startup signal inducing to refer
9 to said call history in said call history memory with respect
10 to said call-signal processing section in the case where no call
11 is issued from said plurality of subscriber's terminal units for
12 a certain period of time.

1 4. The ATM switching system as claimed in claim 3, wherein:
2 said call-signal processing section refers to said call
3 history that was stored in said call history memory before a
4 predetermined period of time from the present time in the case
5 where said startup signal was received by said call-signal

6 processing section from said timer.

1 5. The ATM switching system as claimed in claim 3, wherein:
2 said connection table memory makes a set of a VPI (Virtual
3 Pass Identifier)/VCI (Virtual Channel Identifier) value, which
4 has not yet been used in a transmission path corresponding to
5 a request for connection in said call history of said call history
6 memory, and a VPI/VCI value in a response for connection from
7 said switching network to store data of the set as said connection
8 information.

1 6. The ATM switching system as claimed in claim 5, wherein:
2 said connection table memory stores said respective VPI/VCI
3 values by means of tables corresponding to said plurality of
4 subscriber's terminal units and said switching network.